

Appln. No. 09/529,172
Amdt. dated March 18, 2004
Reply to Office action of November 18, 2003

REMARKS

Claims 1-8, 12-19, 21-36, 54-58, and 65-71 presently appear in this case. No claims have been allowed, although claims 31 and 33 have been indicated to be allowable if rewritten into an independent form. The official action of November 18, 2003 has now been carefully studied. Reconsideration and allowance are hereby respectfully urged.

Briefly, the present invention relates to genetically stable, transformed *Lemnaceae* plants and progeny thereof, the plants being preferably transformed with a heterologous DNA of interest integrated into its chromosome by an *Agrobacterium*-mediated method. The invention further relates to a method for the stable genetic transformation of *Lemnaceae* plants, including the whole plants, plant tissue or callus, by inoculating, or incubating, *Lemnaceae* plants, tissue or callus with *Agrobacterium* containing a transforming DNA molecule having a nucleotide sequence of interest and co-cultivating the plant, tissue or callus with the *Agrobacterium* to produce the stably transformed *Lemnaceae* plant, tissue or callus. The invention further relates to a method for production of the product of interest by culturing the stably transformed *Lemnaceae* plant, tissue or callus and isolating and/or further purifying the heterologous product produced thereby.

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The examiner has repeated the restriction requirement and made it final.

The subject matter of claim 19 has now been deleted from the case without prejudice toward the continuation of prosecution thereof in a continuing application. The subject matter of previously appearing dependent claim 20 has now been inserted into newly amended claim 19, so that claim 19 now reads as claim 20, rewritten in independent form. All of the other previously non-elected claims are now dependent from amended claim 19. Accordingly, no non-elected claims presently appear in this case, and the restriction requirement has been obviated.

The examiner has acknowledged that applicant has now designated PCT/IL98/000487, of which the present application is the national stage under 35 U.S.C. §371, as a continuation in part of PCT/IL97/000328. However, the examiner states that a new declaration is required that reflects the change in priority so that it is consistent with the application data sheet submitted on July 15, 2003. This requirement is respectfully traversed.

The examiner's attention is respectfully invited to 37 C.F.R. §1.76(d)(1), which states that when there are inconsistencies between an application data sheet and the declaration, the latest submitted information will govern

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notwithstanding whether supplied by an application data sheet or by a declaration. Note that 37 C.F.R. §1.76(c)(1) states that supplemental application data sheets may be used to correct or update information in a previously submitted declaration. Note also that 37 C.F.R. §1.63(c) states that certain information may be provided either in an application data sheet or in the declaration. A stated purpose for this rule change is the resulting decrease in the need for supplemental oaths or declarations. Accordingly, as the application data sheet supersedes the previously filed declaration, there is no need to file any supplemental declaration. Reconsideration and withdrawal of this requirement is therefore respectfully urged.

Claims 2, 31, and 33 have been objected to. Examiner notes a misspelling of the word *Wolffia* in line 3 of claim 2. This error has now been corrected.

The examiner states that claims 31 and 33 have been objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

Claims 31 and 33 have not been rewritten in independent form at this time, as it is believed that the

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claims from which they have depended are now in condition for allowance.

Claims 1-8, 20-24, 36, 54-57, 62 and 63 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The examiner states that in claim 1, the recitation "progeny" thereof is considered to be indefinite, as it is not clear from the claim whether the progeny has actually inherited the transformation.

Claim 1 has now been amended to specify that the progeny must be those that have inherited the transformation. Accordingly, the indefiniteness noted by the examiner has now been obviated.

The examiner states that, "claims 20-23 [sic, 22?], 36, 62, and 63" are considered indefinite for depending upon a non-elected claim.

As indicated above, the subject matter of non-elected claim 19 no longer appears in the case, and newly amended claim 19 is previously appearing elected claim 20, rewritten in independent form. All of the remaining claims now depend from newly amended claim 19. Thus, none of the present claims are dependent from a non-elected claim. Accordingly, this part of the rejection has now been obviated.

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Claims 66 and 67 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The examiner states that in claim 66, the recitation "a genetically stable *Lemnaceae* plant" is indefinite, as the term "genetically stable" does not clearly indicate if the plant is stably transformed. The examiner suggests that "genetically stable" be replaced with --stably transformed--.

While applicant disagrees that the term "genetically stable" does not clearly indicate that the plant is stably transformed, nevertheless, in order to obviate this rejection, the change suggested by the examiner has been adopted. It is urged, however, that this change does not affect the scope of the claim.

The examiner states that in claim 67, the recitation "stably transferred" renders the claim indefinite.

Claim 67 has now been amended to change the term "stably transferred" to read "stably transformed," thus obviating this part of the rejection.

Claims 1-8, 54-57 and 67 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The examiner states that every transgenic *Lemnaceae* plant described in the specification was produced by an *Agrobacterium*-mediated method, and such transgenic plants would be different from

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transgenic plants produced by other methods because of the presence of the *Agrobacterium* T-DNA.

While applicants do not necessarily agree with the examiner's reasoning, nevertheless, in order to expedite allowability, claims 1 and 67 have now been amended to specify that the plant has been transformed by an *Agrobacterium*-mediated method, thus obviating this rejection. This amendment is made without prejudice to the prosecution of the broader claims in a continuing application.

The examiner states that claim 3 remains rejected under the enablement requirement of 35 U.S.C. §112. The examiner notes applicant's statement that if it is determined that the strain is not publicly available, then a depository statement will be made. In the meantime, the examiner has maintained the rejection.

Applicant has now deposited this strain in an independent depository. The same is true of the additional species now claimed in new claims 68-70. Unfortunately, none of the existing depositories worldwide accept deposits of *Lemnaceae* to the best of applicant's knowledge. The depository that has accepted this deposit is now applying for status as an official biological material depository in accordance with U.S. PTO rules. Accordingly, it is requested that this requirement be held in abeyance under 37 C.F.R.

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§1.111(b) until allowable subject matter is found in the case. Hopefully the depository will be approved by that time, and the appropriate statement can be made in the present specification.

Claims 1-8, 54-57 and 67 have been rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement. The examiner states that the specification does not reasonably provide enablement for genetically stable transformed *Lemnaceae* plants, produced by any method other than an *Agrobacterium* mediated method.

As indicated above, the claims have now been amended to specify that the plant is produced by an *Agrobacterium*-mediated method. Accordingly, this rejection has now been obviated.

Claims 1, 2, 4-8, 12-16, 18, 20, 25, 26, 28, 36, 54-57 and 65-67 have been rejected under 35 U.S.C. §102(e) as being anticipated by Stomp in light of Stachel for the reasons of record. This rejection is respectfully traversed.

The examiner has noted that applicants have requested an interference. The examiner states, however, that the interference will not be considered until all other rejections have been overcome. As all of the other rejections have now been overcome by the present amendment, it is urged that the requested interference be declared. As

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the claims of Stomp are directed to the same invention as the present claims, the only way to obviate this rejection is by means of an interference proceeding. Reconsideration and withdrawal of this rejection in light of the previously filed request for an interference is respectfully urged.

Claim 3 has been rejected under 35 U.S.C. §102(e) as being anticipated by, or in the alternative under 35 U.S.C. §103(a) as obvious over, Stomp for the reasons of record. This rejection is respectfully traversed.

As the examiner does not consider claim 3 to be patentably distinct from the subject matter of claim 1, and as the subject matter of claim 1 is not patentably distinct from the subject matter of claim 20 of Stomp, this rejection as well is made moot by the previously filed request by applicant for interference with the Stomp patent.

Claims 1, 4-8, 12-18, 20-30, 32, 34-36, 54-58, 62 and 63, have been rejected under 35 U.S.C. §103(a) as being unpatentable over Stomp in view of Stachel, Vernade, Bechtold, and Grimsley for the reasons of record. The examiner has maintained the rejection as an interference proceeding cannot be considered until all other rejections have been overcome. This rejection is respectfully traversed.

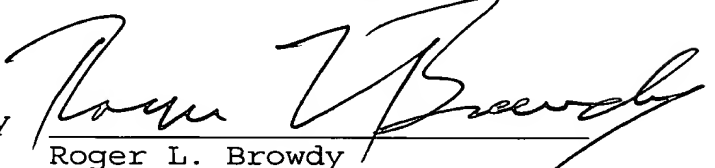
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As discussed hereinabove, all of the other rejections have now been overcome. Institution of an interference proceeding is expected to result in the unavailability of Stomp as a reference, thus obviating this rejection. Reconsideration and withdrawal of this rejection is therefore respectfully urged.

It is submitted that all of the claims now present in the case are now in condition for allowance pending declaration of an interference between the present application and the Stomp patent. Reconsideration and withdrawal of all of the rejections of record and institution of an interference between the present application and Stomp as per the previously filed request under 37 C.F.R. §1.607 is earnestly solicited.

Respectfully submitted,

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